



**Sunday, 3 August 2014**

1:30–5:00 pm .....Registration  
5:30–7:00 pm .....Welcome Reception

**Monday, 4 August 2014**

8:30–8:40 am ..... Opening and Welcome  
8:40–9:10 am ..... **KEYNOTE** Scales, Scaling and Scale Up  
*Larry Lake, U of Texas at Austin*

**Session 1: Business Driven Integration**

*Session Chairmen: Kurang Mehta, Mike King, Matthew Bennett*

9:10–9:25 am ..... **Decision Based Modeling: Building the “Right” Models at the Appropriate Scale** *Charlotte Martin, Shell International E&P*  
9:25–9:40 am ..... **Appropriate Reservoir Modeling** *Michael J. King, Texas A&M University*  
9:40–9:55 am ..... **Integrated Analysis of Geophysical Data for Gross Rock Volume Estimation with Uncertainty** *Cory Hoelting, Chevron Energy Technology Company*  
  
9:55–10:25 am ..... **Coffee Break**  
10:25–10:40 am ..... **“Back-of-the-envelope” Models** *Sebastien Matringe, Quantum Reservoir Impact*  
10:40–10:55 am ..... **Uncertainty and Multidisciplinary Constraints** *Cengiz Esmersoy, Schlumberger*  
10:55 am–11:10 pm.. **How Business Drives the Integration of Data and Uncertainties for the Appropriate Model** *Sheldon Gorrell, RPS Knowledge Reservoir*  
  
11:10–11:45 am ..... **Discussion**  
11:45–1:30 am ..... **Lunch**

**Session 2: Static Model Inputs**

*Session Chairs: Claude Scheepens, Mark Kittridge, Jorge Sanchez*

1:30–1:35 pm ..... Opening  
1:35–2:05 pm ..... **KEYNOTE** Predicting Reservoir Architecture at Multiple Scales: Application of Geologic Rules to Subsurface Modeling *Mike Gardner, Montana State U*  
2:05–2:35 pm ..... **Static Modeling: What Happened to the Geologic Interpretation** *Brodie Thomson, ExxonMobil Production Company*  
2:35–3:05 pm ..... **Quantitative Outcrop Characterization and Modeling as Input to an Integrated Reservoir Model–Imparting Geological Heterogeneity to Reservoir** *Sean Fletcher, ConocoPhillips*  
3:05–3:50 pm ..... **Poster Session** (Refreshments provided during session)  
  
• **Training Image Construction of Point Bars: An Example from Modern Analog, Brazos** *Gregory Benson, ExxonMobil Upstream Research Company*  
• **Impact on the Modeling Method of Water Saturation for a Heavy Oilfield on Tilled Oil-water Contact System** *Ingrid Tatiana Cabrejo, EcopeTrol S.A. Empresa Colombiana de Pelyoleos*  
• **An Approach to Petrotacies Determination in Unconventional Reservoirs** *Travis Ramsay, Halliburton*  
• **Identifying By-Passed Pay in Mature Oil and Gas Fields by Integrating Vintage Subsurface Data with Modern Well-Log, Borehole-Image Logs, and Core: A Case Study of the Upper**

**Pennsylvanian Cleveland Sandstone in Pawnee Co., OK** *Curtis Roddy, Mid-Con Energy LLC*  
3:50–4:20 pm ..... **Depositional Controls on Reservoir Architecture, Heterogeneity and Deliverability: A Multi-scale, Multi-disciplinary Approach in the Deep-water Okume Complex, Equatorial Guinea** *Mihaela Ryer, Hess Corporation*  
4:20–4:50 pm ..... **Upscaling of Electrical Resistivity Measurements in Porous Media** *Zoya Heidari, Texas A&M U*  
4:50–5:20 am ..... **Discussion**  
6:30–8:30 am ..... **Forum Dinner**

**Tuesday, 5 August 2014**

**Session 3: Role of Geophysics**

*Session Chairs: Alfonso Junio Marini, Kurang Mehta, Mosab Nasser*

8:30–8:35 am ..... Opening  
8:35–9:05 am ..... **KEYNOTE** Geostatistics and Rock Physics for Seismic Data Integration in Reservoir Models *Phillipe Doyen, CGG/Geoconsulting*  
9:05–9:35 am ..... **Multi-scale Seismic Conditioning of Reservoir Models with the Wavelet Transform** *Matthew Casey, ExxonMobil Upstream Research Company*  
9:35–10:05 am ..... **Integrated Seismic Elastic Properties and Discontinuities into Reservoir Modeling and Simulation - A Case Study for MP 61, Gulf of Mexico** *Randal Utech, Schlumberger PetroTechnical Services (PTS)*  
10:05–10:45 am ..... **Poster Session** (Refreshments provided during session)  
  
• **Multi-Data Reservoir History Matching of Crosswell Seismic, Electromagnetics and INSAR Data: Determining their Impact and Sensitivity for Enhanced Reservoir Forecasts** *Klemens Katterbauer, King Abdullah U of Science & Technology*  
• **Seismic Reservoir Characterization with Neural Net Optimizes Well Targets and Reserves Forecasting in the Marcellus** *Kevin McKenna, Sigma Cubed, Inc.*  
• **Identifying Sub-seismic Faults from Signal Singularity in the Tight Reservoir** *Huiqun Xu, China U of Petroleum & Yangtze U*  
10:45–11:15 am ..... **Correlating Multiple 4D Seismic to Well Production for Closing the Loop in Fault-compartmentalized Reservoirs** *Zhen Yin, Heriot-Watt Institute of Petroleum Engineering*  
11:15–11:45 am ..... **Quantitative Seismic Reservoir Modeling Through Creation of the QI Model** *Helena Zirczy, Shell*  
11:45 am–12:15 pm .... **Discussion**  
12:15–1:30 am ..... **Lunch**

**Session 4: Static Model Building**

*Session Chair: Daniela Justinano, Marko Maucec, Mark Kittridge*

1:30–1:35 pm ..... Opening  
1:35–2:05 pm ..... **KEYNOTE** Reservoir Model Design *Mark Bentley, AGR TRACS Training*  
2:05-2:35 pm ..... **Preserving Stratigraphic Concepts from Input to Simulation Grid** *Larisa Branets, ExxonMobil Upstream Research Company*  
2:35-3:05 pm ..... **Reservoir Modeling By Using Integration of the SRV Properties, the Fracture Patterns and Their Real-time Propagation Parameters** *Jianfu Ma, Hallibuton Energy Services*  
3:05–3:50am ..... **Poster Session** (Refreshments provided during session)  
  
• **Scenario-based Reservoir Modeling using Sequential Surface Simulation: Method and Application** *Hongmei Li, ExxonMobil*  
• **Diagenetic Controls on Reservoir and Seal Quality at the Field**

**and Basin Scale** *John Pantano, Texas A&M U*  
• **Addressing Complex Structures in an Integrated Reservoir Model** *Melissa Veltri, Schlumberger*  
• **A Hybrid Method for Combining Multi-point Statistic (MPS) and Object-based (Boolean) Methods for Creating Reservoir Property Models Suitable for Reservoir Flow Simulation** *Julian Thorne, Chevron Energy Technology Company*  
3:50-4:20 pm ..... **Application of an Integrated Approach to Preserve Geologic and Seismic Consistency in the Ekofisk History Matching Workflow** *Hari Sudan, ConocoPhillips*  
4:20-4:50 pm ..... **Assimilation of Dynamic Data into Reservoir Models Using a Model Selection Approach** *Sanjay Srinivasan, U of Texas- Austin*  
4:50–5:20 am ..... **Discussion**  
**Evening Free**

**Wednesday, 6 August 2014**

**Session 5: Dynamic Model Building**

*Session Chairs: Matthew Bennett and Mike King*

8:30–8:35 am ..... Opening  
8:35–9:05 am ..... **KEYNOTE** Multi-Scale Modeling of Naturally Fractured Carbonate Reservoirs *Sebastian Geiger, Heriot-Watt U*  
9:05–9:35 am ..... **Dynamic Lorenz Coefficient for Ranking Geological Models and Optimizing Waterfloods** *Mike Shook, Chevron*  
9:35–10:05 am ..... **Reservoir Modeling for Flow Simulation: Surface-based Representation of Geologic Heterogeneity and Space and Time-adaptive Unstructured Meshes** *Matthew Jackson, Imperial College London*  
10:05–10:50 am ..... **Poster Session** (Refreshments provided during session)  
  
• **Bravo Dome Subsurface and Surface Network Modeling** *Shahin Nezhad, OXY USA Inc.*  
• **A Case Study of Flood Front Monitoring in the Halfdan Field, Danish North Sea: Integrating Observation/Monitor Well Data, 4D Seismic and Reservoir Simulation** *Kiam Chai Ooi, Maersk Oil UK Ltd.*  
• **Uncertainty Factors in Reservoir Characterization: How to Assess Uncertainty during Pre-development Phase** *Jesus Sotomayor, Repsol*  
• **Coupled Modeling for Consideration of Geomechanical Influences on Flow Simulations** *Vikram Sen, Taurus Reservoir Solution Ltd.*  
10:50–11:20 am ..... **Low-Rank Representations for Dynamic Reservoir Connectivity Mapping** *Behnam Jafarpour, U of Southern California*  
11:20–11:50 am ..... **Fit for Purpose and Ranking/Screening Models: Are People Really Doing It?** *Sheldon Gorell, RPS Knowledge Reservoir*  
11:50–12:20 pm ..... **Discussion**  
12:20–1:30 pm ..... **Lunch**

**Session 6: Closing the Loop**

*Session Chairs: Marko Maucec, Mosab Nasser, and Matthew Bennett*

1:30–1:35 pm ..... Opening  
1:35–2:05 pm ..... **KEYNOTE** Streamline-Based Transport Tomography *Akhil Datta-Gupta, Texas A&M U*  
2:05–2:35 pm ..... **Integrated Approach for Reservoir Characterization and Uncertainty Quantification and Predictive Modeling** *Ajay Singh, Halliburton*  
2:35–3:05 pm ..... **Field Applications of Multi-Scale Multi-Physics History Matching Approach** *Morteza Khodabakhshi, OXY*  
3:05–3:15 pm ..... **Coffee Break**

3:15–3:45 pm ..... **Practical Examples of Applied Model Maturation and Assisted History Matching** *Jim Jennings, Shell International E&P Inc.*  
3:45–4:15 pm ..... **Uncertainty Quantification with Polynomial Chaos Expansions for Robust Static and Dynamic Modeling** *Pallav Sarma, Chevron/Energy Technology Company*  
4:15–4:25 pm ..... **Coffee Break**  
4:25–4:55 pm ..... **Closing the Seismic Loop: A Workflow for Tighter Integration** *Tim Barker, Shell International E&P Inc.*  
4:55–5:25 pm ..... **Closing the Loops using 3D and 4D Seismic in the Halfdan Field** *Monica Calvert, Maersk Oil*  
5:25–5:55 pm ..... **Discussion**  
6:00–7:30 pm ..... **Vendor Reception** *Organizers: Claude Scheepens and Matthew Bennett; Vendor Participants: Dynamic Graphics, Inc.; GroundMetrics, Inc.; Sciencesoft Limited; SIGMA<sup>3</sup>; Schlumberger Software*

**Thursday, 7 August 2014**

**Session 7: Unconventionals**

*Session Chairs: Ron Dusterhoft, Alfonso Junio Marini, Jerry Youngblood*

8:30–8:35 am ..... Opening  
8:35–9:05 am ..... **KEYNOTE** Seismic Fracture and Stress Characterization for Production Optimization in Unconventional Reservoirs *Colin M. Sayers, Schlumberger*  
9:05–9:35 am ..... **Fluid Phase Behavior and Transport Phenomena in Organic-rich Shales** *I. Yucel Akkutlu, Texas A&M U*  
9:35–10:05 am ..... **Static Models for Unconventional Reservoirs: A Barnett Shale Case Study** *John Pendrel, CGG GeoSoftware*  
10:05–10:50 am ..... **Poster Session** (Refreshments provided during session)  
  
• **Current Practices, Challenges and Road Ahead in IRM for Unconventionals** *Hai-Sui Meng, iReservoir.com, Inc.*  
• **The Effects of Confinement on Fluid Transport Properties and Production: A Study of Eagle Ford Shale Gas-Condensate Reservoir** *Alireza Sanaei, U of Oklahoma*  
• **Fast Simulation of Unconventional Two-phase Reservoir Flows Using Parallel Adaptive Discontinuous Galerkin Finite Element Technology** *Joshua Camp, Halliburton Energy Services, Inc.*  
• **Impact of Geomechanics on Integrated Multi-scale Fracture Network Modeling** *Kazuiko Tezuka, JAPEX*  
10:50–11:20 am ..... **Improving Field Development Plans for Unconventional Reservoirs by Optimizing Well Placement and Completion Design** *Murat Zhiyenkulov, Schlumberger*  
11:20–11:50 am ..... **An Improved Workflow for Optimizing Recovery from Unconventional Reservoirs** *Shameem Siddiqui, Halliburton*  
11:50 am–12:20 pm.. **Discussion**  
12:20–1:30 pm ..... **Lunch**

**Session 8: Multi-disciplinary Integration in IRM**

*Session Chairs: Daniela Justiniano, Jorge Sanchez, Ali Tura*

1:30–1:35 pm ..... Opening  
1:35–2:05 pm ..... **KEYNOTE** Reservoir Modeling Needs and Challenges: A Business Perspective *R. Lee Vaughan Jr., ExxonMobil*  
2:05–2:35 pm ..... **Integrated Production Forecasting for Optimal Development of a New Deep Water Field** *Ganesh Balasubramanian, Chevron*



2:35–3:05 pm ..... **Scalable Visual Computing Technologies for Integrated Reservoir Modeling** *Mario Costa Sousa, U of Calgary*

3:05–3:50 pm ..... **Poster Session** (Refreshments provided during session)

- **3D Reservoir Geo-modeling for Feasibility of Hydrocarbon Storage by Integration of Seismic, Microseismic and Petrophysical Methods with Dataset at Ketzin, Germany** *Junghee Kim, Seoul National U*
- **Integrated Modeling and Simulation for CO<sub>2</sub> EOR and CO<sub>2</sub> Storage in the Zama Pinnacle Reefs Located in the Alberta Basin, Canada** *Guoxiang Liu, Energy & Environmental Research Center*
- **Uncertainty Evaluation and Management through Exploration Lifecycle** *Eileen Nunez Paclibon, Statoil*
- **Architecture, REVs and Effective Properties–Steps Towards a New Workflow** *Caroline Hern, Shell*

3:50–4:20 pm..... **History Matching of a Mature Field Using Non-standard Data and Techniques: An Example from the Janice Field, UK North Sea** *Alasdair MacMillan, Maersk Oil UK Ltd.*

4:20–4:50 pm..... **Challenges and Opportunities to Improve the IRM Process and Business on Observation of Recent Shell Projects** *Conrad J. McCarthy, AlCarthy Geosciences, LLC*

4:50–5:20 am..... **Discussion**

Evening Free

**Friday, 8 August 2014**

**Session 9: Learnings, Discussion, and Road Ahead**

Session Chairs: Ali Tura, Mike King, Claude Scheepens

8:30–8:35 am .....Opening

8:35–10:00 am .....**Discussion Session**

10:00–10:30 am ....**Coffee Break**

10:30–11:30 am ....**Resume Discussion**

11:30 am–11:45 pm..**Closing**